

## <<中国至2050年油气资源科技发展路>>

### 图书基本信息

书名：<<中国至2050年油气资源科技发展路线图>>

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## 前言

CAS is the nation's think tank for science. Its major responsibility is to provide S&T consultations for the nation's decision-makings and to take the lead in the nation's S&T development. In July, 2007, President Yongxiang Lu made the following remarks: "In order to carry out the Scientific Outlook of Development through innovation, further strategic research should be done to lay out a S&T roadmap for the next 20-30 years and key S&T innovation disciplines. And relevant workshops should be organized with the participation of scientists both within CAS and outside to further discuss the research priorities and objectives. We should no longer confine ourselves to the free discovery of science, the quantity and quality of scientific papers, nor should we satisfy ourselves simply with the Principal Investigators system of research. Research should be conducted to address the needs of both the nation and society, in particular, the continued growth of economy and national competitiveness, the development of social harmony, and the sustainability between man and nature." According to the Executive Management Committee of CAS in July, 2007, CAS strategic research on S&T roadmap for future development should be conducted to orchestrate the needs of both the nation and society, and target at the three objectives: the growth of economy and national competitiveness, the development of social harmony, and the sustainability between man and nature.

## 内容概要

As one of the eighteen field-specific reports comprising the comprehensive scope of the strategic general report of the Chinese Academy of Sciences , this sub-report addresses long-range planning for developing science and technology in the field of oil and gas resources. They each craft a roadmap for their sphere of development to 2050. In their entirety , the general and sub-group reports analyze the evolution and laws governing the development of science and technology , describe the decisive impact of science and technology on the modernization process , predict that the world is on the eve of an impending S&T revolution , and call for China to be fully prepared for this new round of S&T advancement. Based on the detailed study of the demands on S&T innovation in Chinas modernization , the reports draw a framework for eight basic and strategic systems of socio-economic development with the support of science and technology , work out Chinas S&T roadmaps for the relevant eight basic and strategic systems in line with Chinas reality , further detail S&T initiatives of strategic importance to Chinas modernization , and provide S&T decision-makers with comprehensive consultations for the development of S&T innovation consistent with Chinas reality. Supported by illustrations and tables of data , the reports provide researchers , government officials and entrepreneurs with guidance concerning research directions , the planning process , and investment. Founded in 1949 , the Chinese Academy of Sciences is the nations highest academic institution in natural sciences. Its major responsibilities are to conduct research in basic and technological sciences , to undertake nationwide integrated surveys on natural resources and ecological environment , to provide the country with scientific data and consultations for governments decision-making , to undertake government-assigned projects with regard to key S&T problems in the process of socio-economic development , to initiate personnel training , and to promote Chinas high-tech enterprises through its active engagement in these areas.

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## 章节摘录

插图：2.4.8 Igneous reservoir It has been about 100 years of igneous reservoir exploration since the igneous reservoir was found in Mexico Paleogene in 1907. A lot of igneous reservoirs have been found on the earth. This can be divided into four stages: "a forbidden zone people tried to avoid, confusion caused by discovery by chance, wandering of tentative exploration and objective actively searched for". So far, it has been proved through exploration that the igneous reservoir has the characteristics of high yield, stable yield and a certain reserve scale and is the new field and direction for future oil and gas exploration. For example, the open-flow capacity of Xushen No. 1 Well and Shenshen No. 2 Well of Songliao Basin reaches 1 million m<sup>3</sup> and Shengshen No. 2 Well has stable yield for 7 consecutive years; the open-flow capacity of Changshen No. 1 Well of Changling Oil Field reaches 1 million m<sup>3</sup>; the single well yield of 1808 well of Basalt Oil Field, carboniferous, Karamay is 53.2t/d, the single well yield of 1809 well is 30.6t/d and the reserve volume is 100.41 million t; the single well yield of No. 1 well of Zhongongshan Gas Field in Sichuan Basin is 25.6\*10<sup>4</sup>m<sup>3</sup>/d. All of the above shows the great potential of igneous reservoir. Meanwhile, it also shows that we should consider igneous reservoir in dialectically. The igneous reservoir in China includes eruptive rock, irruptive rock and volcanoclastic rock, from basic to acid. With huge time span and depth from several hundred meters to 4,000m, characterized in late stage. Non-vibration geophysical techniques such as weight, magnet and electricity play an active role in exploration of igneous reservoir. However, the relationship between magmatic activity and hydrocarbon generation needs further research.

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